

### ABSTRACT

A composite oxide includes agglomerated particles which have an average particle diameter of 20  $\mu\text{m}$  or less, which are composed of a plurality of metallic element oxides being in form of fine particles having an average diameter of 50 nm or less, and which have a surface and an inner portion whose metallic element distributions differ with each other. The characteristics of the respective metallic elements are exhibited maximally. Hence, it is extremely useful as a support for an exhaust gas purifying catalyst. The catalyst exhibits the activities which degrade less even after it is subjected to a severe durability, is good in terms of the heat and sulfur-poisoning resistance, and can efficiently purify the harmful components in exhaust gases. Moreover, it is possible to produce such a composite oxide and catalyst easily and stably by production processes disclosed herein.

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